

In the Claims:

1. (Currently Amended) A method for dynamically determining a lock mode form in a multiprocessor, comprising:
 - (a) maintaining first and second system-wide measures of read and write acquisitions; and
 - (b) determining a lock mode form based upon at least some of said measures.
2. (Currently Amended) The method of claim 1, wherein said lock mode form is selected from the group consisting of: a distributed reader-writer lock mode, a centralized reader-writer lock mode, and an exclusive lock mode.
3. (Currently Amended) The method of claim 2, wherein said exclusive lock mode form is selected from the group consisting of: a test and set lock mode, a test and test and set lock mode, a queued lock mode, a ticket lock mode, and a quad-aware lock mode.
4. (Cancelled) The method of claim 1, further comprising switching to the lock mode form from another lock mode form.
5. (Currently Amended) The method of claim 1, wherein the lock mode form is a distributed reader-writer lock mode, and wherein said determining step is responsive to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions.
6. (Original) The method of claim 5, wherein said determining step is further responsive to a quantity of units in the system.
7. (Original) The method of claim 6, wherein said unit is selected from a group consisting of: a

CPU, a thread, a processor, a transaction, a co-routine, a thread in a multi-threaded architecture, a NUMA module, and a task.

8. (Currently Amended) The method of claim 1, wherein the lock mode form is a centralized lock mode, and wherein said determining step is responsive to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions.
9. (Original) The method of claim 1, further comprising maintaining a system-wide measure of read-hold duration.
10. (Original) The method of claim 9, wherein the step of maintaining a system-wide measure of read-hold duration includes maintaining a measure of read-hold duration by a unit.
11. (Original) The method of claim 10, wherein said unit is selected from a group consisting of: a CPU, a thread, a processor, a transaction, a co-routine, a thread in a multi-threaded architecture, a NUMA module, and a task.
12. (Currently Amended) The method of claim 9, wherein the lock mode form is a centralized lock mode, and wherein said determining step is responsive to the system-wide measures of read acquisitions and read-hold duration.
13. (Currently Amended) The method of claim 9, wherein the lock mode form is an exclusive lock mode and wherein said determining step is responsive to the system-wide measure of read-hold duration.
14. (Original) The method of claim 13, wherein said determining step is further responsive to the system-wide measure of read acquisitions.
15. (Original) The method of claim 1, further comprising periodically updating at least some of

said system-wide measures.

16. (Original) The method of claim 1, wherein at least some of said second system-wide measures are selected from a group consisting of: a digital filter, a weighted average, a sliding window average, a finite impulse response, and a central data structure.

17. (Currently Amended) A computer system comprising:
multiple processors;
first and second system-wide measures of read and write acquisitions of said processors; and
a lock mode manager adapted to select a lock mode form responsive to at least some of said measures.

18. (Currently Amended) The system of claim 17, wherein said lock mode form is selected from a group consisting of: a distributed reader-writer lock mode, a centralized reader-writer lock mode, and an exclusive lock mode.

19. (Currently Amended) The system of claim 18, wherein said exclusive lock mode form is selected from a group consisting of: a test and set lock mode, a test and test and set lock mode, a queued lock mode, a ticket lock mode, and a quad-aware lock mode.

20. (Currently Amended) The system of claim 17, wherein the lock mode form is a distributed reader-writer lock mode, and wherein said lock mode manager is responsive to the system-wide measure of write acquisitions and the system wide measure of read acquisitions.

21. (Currently Amended) The system of claim 17, wherein the lock mode form is a centralized lock mode, and wherein said lock mode manager is responsive to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions.

22. (Currently Amended) The system of claim 17, wherein the lock mode form is a centralized lock mode, and wherein said lock mode manager is responsive to the system-wide measure of read acquisitions and a system-wide measure of read-hold duration.

23. (Currently Amended) The system of claim 17, wherein the lock mode form is an exclusive lock mode and wherein said lock mode manager is responsive to a system-wide measure of read-hold duration.

24. (Currently Amended) In a multiprocessor system, an article comprising:
a computer-readable signal bearing medium;
means in the medium for maintaining first and second system-wide measures of read and write acquisitions; and
means in the medium for selecting a lock mode form responsive to at least some of said measures.

25. (Original) The article of claim 24, wherein the medium is selected from a group consisting of: a recordable data storage medium, and a modulated carrier signal.

26. (Currently Amended) The article of claim 24, wherein said lock mode form is selected from a group consisting of: a distributed reader-writer lock mode, a centralized reader-writer lock mode, and an exclusive lock mode.

27. (Currently Amended) The article of claim 24, wherein the lock mode form is a distributed reader-writer lock mode, and wherein said means in the medium for selecting a lock mode form is responsive to the system-wide measure of writer acquisitions and the system wide measure of read-acquisitions.

28. (Currently Amended) The article of claim 24, wherein the lock mode form is a centralized lock mode, and wherein said means in the medium for selecting a lock mode

is response to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions.

29. (Currently Amended) The article of claim 24, wherein the lock mode form is a centralized lock mode, and wherein said means in the medium for selecting a lock mode form is responsive to a system-wide measure of read acquisitions and a system-wide measure of read-hold duration.

30. (Currently Amended) The article of claim 24, wherein the lock mode form is an exclusive lock mode and wherein said lock mode manager means in the medium for selecting a lock form is responsive to a system-wide measure of read-hold duration.

31. (Original) The article of claim 24, wherein at least some of said second system-wide measures are selected from a group consisting of: a digital filter, a weighted average, a sliding window average, a finite impulse response, and a central data structure.